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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/538,351	03/29/2000	Katherine H. Guo	554-224 (Guo 3-3-2-22-2	6141
46363	7590	11/02/2006	EXAMINER	
PATTERSON & SHERIDAN, LLP/ LUCENT TECHNOLOGIES, INC 595 SHREWSBURY AVENUE SHREWSBURY, NJ 07702			ENGLAND, DAVID E	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/538,351	Applicant(s) GUO ET AL.	
	Examiner David E. England	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1 and 5 – 8 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyal (6484199) in view of Hunter et al. (6647417) (hereinafter Hunter).
4. As per claim 5, as closely interpreted by the Examiner, Eyal teaches a method for caching streaming multimedia (SM), comprising:
5. calculating a helper hotness rating at a helper server (HS) for each of a plurality of SM objects that are hosted at a content server connected to the HS in a network, each helper hotness rating being a total number of client requests for a particular SM object divided by a time period during which the client requests are received, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line 63);
6. categorizing each SM object into one of a plurality of helper hotness categories based on the calculated helper hotness rating, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line

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63), but does not specifically teach pulling a fraction of the SM objects by the HS from the content server, said fraction being determined according to the helper hotness category, the HS caching the fractions of each SM object for distribution to a plurality of clients, the HS being interposed between the content server and the clients.

7. Belknap teaches pulling a fraction of the SM objects by the HS from the content server, said fraction being determined according to the helper hotness category, the HS caching the fractions of each SM object for distribution to a plurality of clients, the HS being interposed between the content server and the clients, (e.g., col. 2, lines 3 – 29 & col. 6, line 22 – col. 7, line 27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Belknap with Eyal because storing a fraction of a streaming media object can provide more memory space for other streaming media that are in higher demand.

8. Claim 6 is rejected for similar reasons as stated above.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eyal and Belknap as applied to claim 5 above, and in further view of Kamel et al. (6061720) (hereinafter Kamel).

10.

11. As per claim 1, as closely interpreted by the Examiner, Eyal teaches a method for caching streaming multimedia (SM), comprising:

12. calculating, at a content server that is hosting a plurality of SM objects, a server hotness rating for each SM object, said content server being connected to a plurality of helper server (HSs) in a network, each server hotness rating being a sum of helper hotness ratings over said

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HSs, each helper hotness rating being a local measure of client demand for each SM object, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line 63);

13. categorizing each SM object into one of a plurality of server hotness categories based on calculated server hotness rating, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line 63); and

14. pushing, from said content server to all HSs, said HSs caching each SM object for distribution to a plurality of clients, (e.g. col. 12, lines 37 – 67 & col. 30, line 13 – col. 31, line 63), but does not specifically teach pushing each SM object from the content server to a fraction of HSs, each fraction being determined according to the server hotness category, the HSs caching the fractions of each SM object for distribution to a plurality of clients, the HSs being interposed between the content server and the clients.

15. Kamel teaches pushing each SM object from the content server to a fraction of HSs, each fraction being determined according to the server hotness category, the HSs caching the fractions of each SM object for distribution to a plurality of clients, the HSs being interposed between the content server and the clients, (e.g., col. 4, lines 5 – 31 & col. 5, lines 24 – 67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kamel with the combine system of Eyal and Belknap because rating media data to the specification of a group of clients give the ability to transmit only a preview of the media if the client does not wish to listen or view all of the media which would use less bandwidth to only play a preview of the media, unless the client request, by rating, the media more often or wishes to download the media, then the bandwidth would then be fully utilized for said full download.

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16. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyal and Belknap as applied to claim 5 above, and in further view of Saxena et al. (5805821) (hereinafter Saxena).

17. As per claim 7, as closely interpreted by the Examiner, Eyal and Belknap do not specifically teach a deterministic cache placement and replacement policy is implemented at the HSs. Saxena teaches a deterministic cache placement and replacement policy is implemented at the HSs, (e.g., col. 23, lines 1 – 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Saxena with the combine system of Eyal and Belknap because an important element of video delivery is that the data stream be delivered isochronously, that is without breaks and interruptions that a viewer or user would find objectionable.

18. As per claim 8, as closely interpreted by the Examiner, Eyal and Belknap do not specifically teach a random cache placement and replacement policy is implemented at the HSs. Saxena teaches a random cache placement and replacement policy is implemented at the HSs, (e.g., col. 23, lines 1 – 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Saxena with the combine system of Eyal and Belknap because of similar reasons stated above.

Response to Arguments

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19. Applicant's arguments with respect to claims 1 and 5 – 8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. The Applicant is advised to contact the Examiner to discuss claim interpretation and expedite prosecution to possible allowable material.

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

22. a. Fairchild et al. U.S. Patent No. 6728760 discloses Optimizing delivery of computer media.

23. b. Bommaiah et al. U.S. Patent No. 6708213 discloses Method for streaming multimedia information over public networks.

24. c. Guo et al. U.S. Patent No. 6377972 discloses High quality streaming multimedia.

25. d. Belknap et al. U.S. Patent No. 5586264 discloses Video optimized media streamer with cache management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912.

The examiner can normally be reached on Mon-Thur, 7:00-5:00.

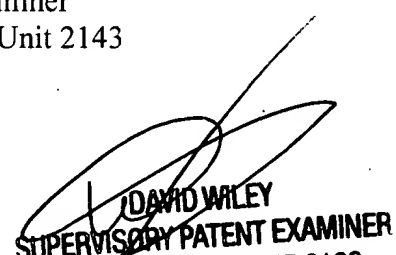
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. England
Examiner
Art Unit 2143

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